

Serial No. 10/733,998
Docket No. SO0007 US NA

AUG 29 2006

Page 3

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A process for producing 6 to 25 dpf carpet staple fiber comprising the steps of: melt spinning poly(trimethylene terephthalate) into fibers; accumulating the fibers under conditions to produce an aged undrawn yarn; prewetting a the aged undrawn yarn, said aged undrawn yarn consisting essentially of poly(trimethylene terephthalate), at a temperature less than about 45°C; drawing the ~~fiber~~ yarn under wet conditions at a temperature of from about 45°C to about 95°C in a first stage to a length of about 30 to about 90 percent of its final length; further drawing the ~~fiber~~ yarn in a second stage at a temperature from about 45°C to about 98°C under wet conditions; crimping the drawn ~~fiber~~ yarn; thermo-fixing the crimped ~~fiber~~ yarn in the presence of steam at a temperature from about 80°C to about 100°C; and drying the crimped ~~fiber~~ yarn at 60°C to 140°C.

2. (Original) The process of claim 1, wherein said undrawn yarn is spun on equipment having a spinneret capillary density of at least 2/cm² and a quench zone shorter than about 16 feet.

3. (Original) The process of claim 1, wherein the undrawn yarn is spun at a speed less than about 600 ypm.

4. (Original) The process of claim 1, wherein said prewetting and drawing are carried out under water or under an aqueous solution of processing finish.

5. (Original) The process of claim 1, wherein during said prewetting and drawing, said yarn is in the form of a spun rope of less than about 300,000 denier/inch.

Serial No. 10/733,998
Docket No. SO0007 US NA

Page 4

6. (Currently Amended) The process of claim 1, wherein in said first draw stage, the ~~fiber~~ yarn is drawn to a length from about 40 to about 70 percent of its final length.

7. (Currently Amended) The process of claim 1, wherein in said first draw stage, the ~~fiber~~ yarn is drawn to a length from about 50 to about 55 percent of its final length.

8. (Original) The process of claim 1, wherein said first draw stage is carried out at a temperature of about 80°C or less.

9. (Original) The process of claim 1, wherein said first draw stage is carried out at a temperature of about 70°C or less.

10. (Original) The process of claim 1, wherein said first draw stage is carried out at a temperature of about 60°C or less.

11. (Original) The process of claim 1, wherein said first draw stage is carried out at a temperature of about 50°C to about 55°C.

12. (Original) The process of claim 1, wherein said second draw stage is carried out at a temperature of about 60°C to about 80°C.

13. (Original) The process of claim 1 wherein said thermo-fixing is carried out at a temperature of about 85°C.

14. (Original) The process of claim 1 wherein said drawn yarn has a denier of 6 to 20 dpf.

15. (Currently Amended) The process of claim 1 wherein the crimped ~~fiber~~ yarn is dried at a temperature from about 60°C to about 100°C.

Serial No. 10/733,998
Docket No. SO0007 US NA

Page 5

16. (Currently Amended) A process for producing 1 to 6 dpf textile staple fiber comprising the steps of: melt spinning poly(trimethylene terephthalate) into fibers; accumulating the fibers under conditions to produce an aged undrawn yarn; pre-wetting a the aged undrawn yarn, said aged undrawn yarn consisting essentially of poly(trimethylene terephthalate), at a temperature less than about 45°C; drawing the ~~fiber~~ yarn under wet conditions at a temperature of from about 45°C to about 95°C in a first stage to a length of about 30 to about 90 percent of its final length; further drawing the ~~fiber~~ yarn in a second stage at a temperature from about 45°C to about 98°C under wet conditions; crimping the drawn ~~fiber~~ yarn; thermo-fixing the crimped ~~fiber~~ yarn in the presence of steam at a temperature from about 80°C to about 100°C; and drying the crimped ~~fiber~~ yarn at 60°C to 140°C.

17. (Original) The process of claim 16, wherein said undrawn yarn is spun on equipment having a spinneret capillary density of at least about 8/cm² and a quench zone shorter than about 16 feet.

18. (Original) The process of claim 16 wherein said undrawn yarn is spun at a speed of 1300 ypm or less.

19. (Original) The process of claim 16 wherein said undrawn yarn is spun at a speed of 900 ypm or less.

20. (Original) The process of claim 16 wherein said prewetting and drawing are carried out under water or under an aqueous solution of processing finish.

21. (Original) The process of claim 16, wherein during said prewetting and drawing, said yarn is in the form of a spun rope of less than about 200,000 denier/inch.

Serial No. 10/733,998
Docket No. 500007 US NA

Page 6

21. (Original) The process of claim 16, wherein during said prewetting and drawing, said yarn is in the form of a spun rope of less than about 200,000 denier/inch.

22. (Currently Amended) The process of claim 16, wherein in said first draw stage, the ~~fiber~~ yarn is drawn to a length from about 40 to about 90 percent of its final length.

23. (Currently Amended) The process of claim 16, wherein in said first draw stage, the ~~fiber~~ yarn is drawn to a length from about 70 to about 90 percent of its final length.

24. (Original) The process of claim 16, wherein said first draw stage is carried out at a temperature of about 80°C or less.

25. (Original) The process of claim 16, wherein said first draw stage is carried out at a temperature of about 70°C or less.

26. (Original) The process of claim 16, wherein said first draw stage is carried out at a temperature of about 60°C or less.

27. (Original) The process of claim 16, wherein said first draw stage is carried out at a temperature of about 50°C to about 55°C.

28. (Original) The process of claim 16, wherein said second draw stage is carried out at a temperature of about 60°C to about 80°C.

29. (Original) The process of claim 16, wherein said thermo-fixing is carried out at a temperature of about 85°C.

Serial No. 10/733,998
Docket No. SO0007 US NA

Page 7

30. (Currently Amended) The process of claim 16, wherein said crimped ~~fiber~~ yarn is dried at a temperature from about 60°C to about 100°C.

31. (Canceled)

32. (Canceled)

33. (Canceled)

34. (Canceled)

35. (Canceled)

36. (Canceled)

37. (Canceled)

38. (Canceled)

39. (Canceled)

40. (Canceled)

41. (Canceled)

42. (Canceled)

43. (Canceled)

44. (Canceled)

45. (Canceled)